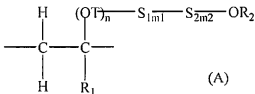


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A cement additive containing copolymers comprising one or more constitutional units represented by formula A:



wherein

R₁ is hydrogen, an alkyl group having 1 to 4 carbon atoms, an alkenyl group having 1 to 4 carbon atoms or an aryl group having 6 to 9 carbon atoms;

R₂ is hydrogen or an alkyl group having 1 to 9 carbon atoms, an alkenyl group having 1 to 9 carbon atoms or an aryl group having 6 to 9 carbon atoms;

T is alkylene having 1 to 4 carbon atoms, wherein the alkylene may include straight-chain alkylene or branched alkylene or arylene having 6 to 9 carbon atoms;

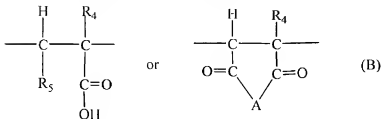
n is 0 or 1;

S₁ and S₂ are, independently of one another, -OC_kH_{2k}- or -OCH₂CHR₃-, wherein k is 2 or 3, R₃ is an alkyl group having 1 to 9 carbon atoms, an aryl group having 6 to 9 carbon atoms; and

$$6 \leq m_1 + m_2 \leq 25;$$

and

one or more constitutional units represented by formula B:



wherein

R₄ is hydrogen or a methyl group;

R₅ is hydrogen or a group represented by COOY;

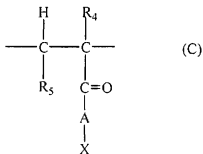
Y is hydrogen, an aliphatic hydrocarbon group having 1 to 8 carbon atoms, wherein the aliphatic hydrocarbon group may include straight-chain, branched, saturated or unsaturated groups, a cyclic hydrocarbon group having 3 to 8 carbon atoms, wherein the cyclic hydrocarbon group may include straight-chain, branched, saturated or unsaturated groups, a hydroxyalkyl group having 2 to 5 carbon atoms, wherein the hydroxyalkyl group may include branched groups, a hydroxyalkenyl group having 2 to 5 carbon atoms, alkali metal or alkaline earth metal, an ammonium group derived from alkylamine having 1 to 20 carbon atoms, alkanolamine having 1 to 20 carbon atoms, cycloalkylamine having 5 to 8 carbon atoms, or arylamine having 6 to 14 carbon atoms;

A is oxygen or NR₆; and

R₆ is hydrogen, an alkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms, a sulfonyl group or a sulfanyl group;

and

one or more constitutional units represented by formula C:



wherein

R₄ is hydrogen or a methyl group;

R₅ is hydrogen or a group represented by COOY;

A is oxygen or NR₆;

X is an aliphatic hydrocarbon group having 1 to 8 carbon atoms, wherein the aliphatic hydrocarbon group may include straight-chain, branched, saturated or unsaturated groups. a

cyclic hydrocarbon group having 3 to 8 carbon atoms, wherein the cyclic hydrocarbon group may include straight-chain, branched, saturated or unsaturated groups, a hydroxyalkyl group having 2 to 5 carbon atoms, wherein the hydroxyalkyl group may include branched groups, a hydroxyalkenyl group having 2 to 5 carbon atoms, alkali metal or alkaline earth metal, an ammonium group derived from alkylamine having 1 to 20 carbon atoms, alkanolamine having 1 to 20 carbon atoms, cycloalkylamine having 5 to 8 carbon atoms, or arylamine having 6 to 14 carbon atoms;

and wherein the cement additive comprises copolymers wherein the mole ratio of the constitutional units A and C is $0.1 \leq A/C \leq 1$ and the mole ratio of the constitutional units B and C is $B/C \leq 1$, and copolymers wherein the mole ratio of the constitutional units A and C is $A/C > 1$ and the mole ratio of the constitutional units B and C is $1 < B/C \leq 20$.

2. (Previously Presented) The cement additive according to claim 1 wherein the weight average molecular weight of the copolymers is 5,000 to 50,000.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) The cement additive according to claim 1 comprising copolymers wherein the mole ratio of the constitutional units A and C is $0.1 \leq A/C \leq 1$ and the mole ratio of the constitutional units B and C is $B/C \leq 1$, and copolymers wherein the mole ratio of the constitutional units A and C is $A/C > 1$ and the mole ratio of the constitutional units B and C is $1 < B/C \leq 20$ in a ratio of 20:80 to 99:1.

8. (Previously Presented) The cement additive according to claim 1 further comprising one or more of additive I selected from the group consisting of copolymers comprising vinyl alcohol; polycarboxylic acid type copolymers; copolymers of alkyl vinyl ether and acrylic acid derivatives; copolymers of hydroxyalkyl vinyl ether and acrylic acid derivatives; copolymers of vinyl alcohol derivatives and acrylic acid derivatives; copolymers of vinyl ether, acrylic acid and malic acid; copolymers of allyl ether and maleic anhydride; copolymers of allyl ether, maleic anhydride and maleic acid ether; copolymers of methacrylate alkylene oxide ether and methacrylic acid; copolymers of methacrylate alkylene oxide ether and acrylic acid; maleic acid esters; copolymers of malic acid and styrene; ligninsulfonic acid; polymelaminesulfonic acid; bis-naphthalenesulfonic acid and gluconic acid.

9. (Cancelled)

10. (Cancelled)

11. (Original) The cement additive according to claim 8 comprising cement additive I, copolymers wherein the mole ratio of the constitutional units A and C is $0.1 \leq A/C \leq 1$ and the mole ratio of the constitutional units B and C is $B/C \leq 1$, and copolymers wherein the mole ratio of the constitutional units A and C is $A/C > 1$ and the mole ratio of the constitutional units B and C is $1 < B/C \leq 20$; wherein cement additive I is comprised in a ratio of 1 to 99 wt% of the total amount of cement additives.

12. (Previously Presented) The cement additive according to claim 1 further comprising one or more of cement additive II selected from the group consisting of gluconic acid, sodium gluconate, saccharides, sugar alcohols, lignin, polycarboxylic acid, polyamide, polyamine, polythoxyethylenc, triethanolamine, polysaccharide derivatives, and lignin derivatives.

13. (Original) The cement additive according to claim 12 wherein cement additive II is 40 wt% or less of the total amount of cement additives.

14. (Previously Presented) The cement additive according to claim 1 further comprising at least one of air entraining agents, dry shrinkage reducing agents, accelerators, retarding agents, foaming agents, defoaming agents, rust preventing agents, quick setting agents, thickeners or water-soluble high molecular substances.

15. (Previously Presented) The cement additive according to claim 8 further comprising one or more of cement additive II selected from the group consisting of gluconic acid, sodium gluconate, saccharides, sugar alcohols, lignin, polycarboxylic acid, polyamide, polyamine, polythoxyethylene, triethanolamine, polysaccharide derivatives, and lignin derivatives.

16. (Previously Presented) The cement additive according to claim 8 further comprising at least one of air entraining agents, dry shrinkage reducing agents, accelerators, retarding agents, foaming agents, defoaming agents, rust preventing agents, quick setting agents, thickeners or water-soluble high molecular substances.

17. (Previously Presented) The cement additive according to claim 1 wherein the copolymer further comprises a monomer that is at least one of unsaturated monocarboxylic acid derivatives, allyl alcohol acid derivatives, crotyl alcohol acid derivatives, or diesters of unsaturated dicarboxylic acids.

18. (Previously Presented) The cement additive of claim 1 wherein the copolymer comprises a constitutional unit A that is at least one of polyethylene glycol monovinyl ether or methylpolyethylene glycol monovinyl ether.

19. (Previously Presented) The cement additive according to claim 1 wherein the copolymer comprises a constitutional unit B that is at least one of methacrylic acid, maleic acid anhydride, maleic acid or acrylic acid.

20. (Previously Presented) The cement additive according to claim 1 wherein the copolymer comprises a constitutional unit C that is at least one of methyl (meth)acrylate, ethyl (meth)acrylate, isobutyl (meth)acrylate, n-butyl (meth)acrylate, hydroxypropyl (meth)acrylate, hydroxyethyl (meth)acrylate, or malic acid dibutyl ester.

21. (Previously Presented) The cement additive according to claim 1 comprising copolymers wherein the mole ratio of the constitutional units A and C is $0.1 \leq A/C \leq 1$ and the mole ratio of the constitutional units B and C is $B/C \leq 1$, and copolymers wherein the mole ratio of the constitutional units A and C is $A/C > 1$ and the mole ratio of the constitutional units B and C is $1 < B/C \leq 20$ in a ratio of 50:50 to 80:20.